

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 59073173
PUBLICATION DATE : 25-04-84

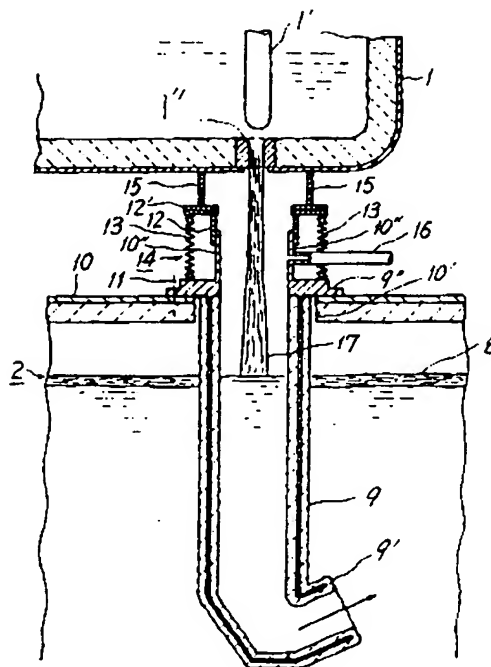
APPLICATION DATE : 19-10-82
APPLICATION NUMBER : 57183464

APPLICANT : KAWASAKI STEEL CORP;

INVENTOR : NANBA AKIHIKO;

INT.CL. : B22D 41/08

TITLE : METHOD AND DEVICE FOR RAISING
OF MOLTEN STEEL



ABSTRACT : PURPOSE: To prevent the oxidation of molten steel and to assure a stable operation by providing an immersion cylinder which is opened at top end in the charging hole of a ladle for transfer and is submerged and is horizontally opened at bottom end into the molten steel in a receiving ladle and transferring the molten metal between the ladles under atmospheric purging.

CONSTITUTION: A refractory immersion cylinder 9 of which the bottom end part has an opening 9' submerged under the bath surface 8 of the molten steel transferred into a receiving ladle 2 and which has a mounting flange 9'' at the top end fixed to a ladle cover 10 is provided. An elastic expansion cylinder 14 having a repulsive spring 13 is mounted in the top part thereof and is pressed to the annular projection 15 in the charging hole 1' in the bottom of a ladle 1 for transfer. The inside diameters of the two cylinders is made substantially larger than the bore of the hole 1'. Inert gas is fed through a gas supply pipe 16 into the cylinder 9 and the cylinder 14 to purge the atmospheric air and while such state is maintained, the molten steel is transferred between the ladles. The formation of any inclusion owing to the air oxidation in the molten steel under transfer is prevented and the problem of clogging in a nozzle, etc. is solved.

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